
The assessment of quality of suburban building stock and quality standards

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Suburban Housing in Europe accounts for a significant portion of all European urban heritage. Therefore the quality of the existing building stock has a significant role and potential when addressing the improvement of the quality of life. Working Group 2 of COST Action TU0701 was active on Task 2 addressing the definition of criteria and parameters to assess the quality of suburban housing estates considering user needs and social factors influencing the quality of life. The Working Group was also active on Task 4 and addressed the definition of quality standards for assessing the level of acceptable quality and the non-technical factors to be considered when estimating the actual value of a suburban housing estate and in developing a refurbishment programme. The methodology was based on case studies and quality standards from 14 different European countries. The Indicators Matrix was developed as a tool to assess the quality of the suburban building stock. The papers presented in this chapter further address aspects of quality of the suburban building stock and suburban areas.

Sustainability analysis, phase II: Life-cycle assessment costs and eco balance

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The sustainability analysis, which was conducted in the Heinrich-Lübke-Siedlung neighbourhood in Frankfurt am Main, showed that the existing building stock is generally in good condition, though it was noted that energy modernisation is required. At first, a preliminary scenario comparison showed that sustainable modernisation in comparison to conventional energy modernisation can be implemented with slightly higher costs. The aim of this study was to define different optimal ecologically and economically sustainable variants onwards and to analyse the entire life cycle in the next stage of the evaluation. It was also found that both the Life-Cycle Cost (LCC) analysis and the Life-Cycle Assessment (LCA) included four factors: 'Compulsory maintenance', 'Scheduled maintenance', 'Modernisation' and 'Demolition and reconstruction'. A period of 50 years was chosen as the examination period for both comparisons.

Quality assessment of high density housing settlements: Multi-criteria assessment systems and indicators

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The primary goal of each project is to ensure 'the quality of the building work'. The quality can be distinguished and classified as: *Housing quality*; *Environmental quality* and *Technological quality*.

For this purpose the priority is to define the '*housing quality indicators*'. Indicators can be used in order to identify multi-criteria assessment system usable with the aims to improve the quality of the suburban area. Several examples of multi-criteria evaluation systems are: *Housing Quality Indicators Form*, INDI – Indicators Impact, Qualitel Method, EPIQR - Energy Performance Indoor Environmental Quality and Retrofit and CPTED - Crime Prevention Through Environmental Design.
